Application No. 10/597,800
Office Action mailed September 16, 2007
Amendment dated December 16, 2009

Amendments to the Claims:

Kindly replace the previous claim set with the claim set which appears below in which Claims 2-3 have been cancelled and Claims 1, 27, and 46-48 have been amended to read as follows:

1. (Currently Amended) A dispensing nozzle comprising:

(i) an elongate nozzle body having a base portion and a dispensing end;

(ii) an internal conduit in the nozzle body for delivering product from the base portion to the dispensing end;

(iii) engaging formations on the nozzle for inter-engaging with co-operating engaging formations on a cap, to hold said cap in a position over-fitting the nozzle; and

(iv) ~~an~~ first and second external ramps are provided longitudinally spaced apart on the nozzle body and against which a co-operating portion on the cap may act by relative rotation of the cap and the nozzle in at least one direction, to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position, wherein the first and second external ramps each comprise a ramping surface oblique to the direction of rotation of the cap.

Claims 2-3. (Cancelled)

4. (Previously Presented) A nozzle according to claim 1 wherein the separating force of the co-operating surface and the external ramp is provided by the action of relative rotation of the cap and the nozzle in two opposing directions.

5. (Original) A nozzle according to claim 4 wherein the ramp comprises two opposing ramp surfaces which are oblique to the direction of rotation of the cap.

6. (Previously Presented) A nozzle according to claim 2 wherein the relative rotation required to effect separation is less than about 90^0.

7. (Previously Presented) A nozzle according to claim 2 wherein the relative rotation required to effect separation is less than about 80^0.

8. (Previously Presented) A nozzle according to claim 2 wherein the relative rotation required to effect separation is less than about 60^0.

9. (Previously Presented) A nozzle according to claim 2 wherein the ramp is provided by a ramp surface on an external shoulder defined on the nozzle body.

10. (Original) A nozzle according to claim 9 wherein the external shoulder is defined on a bridging portion on the nozzle, which bridges two portions of the nozzle having different diameters.

11. (Previously Presented) A nozzle according to claim 9 wherein the shoulder provides a surface circumferentially disposed about at least a portion of a longitudinal axis of the nozzle body.

12. (Original) A nozzle according to claim 11 wherein the orientation of the surface is substantially transverse to the longitudinal axis of the nozzle body.

13. (Previously Presented) A nozzle according to claim 1 wherein the ramp comprises a ramp surface with a first portion and a second portion arranged so that movement along the ramp from the first to the second portion will provide a desired lift.

14. (Previously Presented) A nozzle according to claim 1 in which the ramp comprises two opposing ramp surfaces arranged to meet contiguously at lower ends thereof.

15. (Previously Presented) A nozzle according to claim 1 wherein the ramp is curved about a longitudinal axis of the nozzle so as to follow the travel path of the co-operating portion on the cap of the nozzle.

16. (Previously Presented) A nozzle according to claim 1 wherein the ramp is provided on a circumferentially arranged ridge portion which is spaced from, and extends about, a wall portion of the nozzle portion.

17. (Previously Presented) A nozzle according to claim 1 wherein the ramp is arranged so as to be clearly visible to a user in both the disengaged or inter-engaged position.

18. (Previously Presented) A nozzle according to claim 1 wherein the nozzle inter-engages with the cap in a push fit manner.

19. (Original) A nozzle according to claim 18 wherein the nozzle inter-engages with the cap in a snap-fit arrangement.

20. (Previously Presented) A nozzle according to claim 18 wherein the nozzle additionally inter-engages with the cap in a twist-fit arrangement.

21. (Previously Presented) A nozzle according to claim 1 wherein first and second ramps are provided longitudinally spaced apart along the nozzle body.

22. (Original) A nozzle according to claim 21 wherein snap-fit formations on the nozzle body are arranged on the nozzle body between said first and second ramps.

23. (Previously Presented) A nozzle according to claim 1 wherein first and second ramps are provided transversely spaced apart on the nozzle body.

24. (Previously Presented) A nozzle according to claim 21 wherein said first and second ramps are provided on a shoulder on the nozzle.

25. (Previously Presented) A nozzle according to claim 21 wherein a further co-operating portion of the cap is arranged to act against said second ramp.

26. (Previously Presented) A nozzle according to claim 1 comprising at least one further external ramp on the nozzle body against which internal longitudinal ribs running along the internal cap body may act.

27. (Currently Amended) A cap for overfitting a dispensing nozzle comprising:

(i) a first closed end;

(ii) a housing for receiving an elongate nozzle body and defining a second open end;

(iii) engaging formations on the cap for inter-engaging with co-operating engaging formations on the nozzle, to hold said cap in a position over-fitting the nozzle; and

(iii) a mouth about the open end;

~~at least one~~ first and second co-operating portions on the cap arranged to respectively act on ~~a ramping surface~~ first and second external ramps of the nozzle when overfitted on the nozzle so as to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position.

28. (Original) A cap according to claim 27 wherein said at least one co-operating portion projection is shaped to mate with the ramp surface.

29. (Previously Presented) A cap according to claim 27 wherein the separating force of the co-operating surface and the external ramp is provided by the action of relative rotation of the cap and the nozzle in at least one direction.

30. (Previously Presented) A cap according to claim 27 wherein the separating force of the co-operating surface and the external ramp is provided by the action of relative rotation of the cap and the nozzle in two opposing directions.

31. (Previously Presented) A cap according to claim 29 wherein the relative rotation required to effect separation is less than about 90^0.

32. (Previously Presented) A cap according to claim 29 wherein the relative rotation required to effect separation is less than about 80^0.

33. (Previously Presented) A cap according to claim 29 wherein the relative rotation required to effect separation is less than about 60^0.

34. (Previously Presented) A cap according to claim 27 wherein said at least one co-operating portion is of a convex shape.

35. (Previously Presented) A cap according to claim 27 wherein said at least one co-operating portion is in the form of a projection.

36. (Previously Presented) A cap according to claim 27 wherein the travel path of the co-operating portion on the cap is a circumferential path about the nozzle.

37. (Previously Presented) A cap according to claim 27 comprising two opposing co-operating portions provided on the cap.

38. (Previously Presented) A cap according to claim 27 comprising internal inter-engaging formation for inter-engaging with formations located externally on the nozzle.

39. (Previously Presented) A cap according to claim 27 comprising a further co-operating portion on the cap for co-operating with a further ramp on the nozzle.

40. (Original) A cap according to claim 39 wherein the further co-operating portion of the cap is provided on an internal shoulder.

41. (Previously Presented) A cap according to claim 27 further comprising at least one internal longitudinal rib running along the internal cap body from the closed end toward the open end.

42. (Previously Presented) A cap according to claim 27 further comprising at least two internal longitudinal ribs spaced apart within the cap body and running along the internal cap body from the closed end toward the open end thereof.

43. (Previously Presented) A cap according to claim 27 further comprising a pin within the housing attached at one end to the cap and having a free end projecting toward the open end of the cap.

44. (Previously Presented) A cap according to claim 27 arranged to overfit and inter-engage with a nozzle.

45. (Previously Presented) A nozzle according to claim 1 arranged to have overfitted thereto and inter-engaged therewith a cap.

46. (Currently Amended) An assembly comprising a cap for overfitting a dispensing nozzle comprising:

(i) a first closed end;

(ii) a housing for receiving an elongate nozzle body and defining a second open end;

(iii) engaging formations on the cap for inter-engaging with co-operating engaging formations on the nozzle, to hold said cap in a position over-fitting the nozzle; and

(iii) a mouth about the open end;

~~at least one~~ first and second co-operating portions on the cap arranged to act respectively on ~~a ramping surface~~ first and second external ramps of the nozzle when overfitted on the nozzle so as to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position overfitted on and engaged with a nozzle comprising:

(i) an elongate nozzle body having a base portion and a dispensing end;

(ii) an internal conduit in the nozzle body for delivering product from the base portion to the dispensing end;

(iii) engaging formations on the nozzle for inter-engaging with co-operating engaging formations on a cap, to hold said cap in a position over-fitting the nozzle; and

(iv) ~~an~~ first and second external ramps are provided longitudinally spaced apart on the nozzle body and against which ~~a~~ first and second co-operating portions on the cap may act by relative rotation of the cap and the nozzle in at least one direction, to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position wherein first and second

external ramps each comprise a ramping surface oblique to the direction of rotation of the cap.

47. (Currently Amended) A container having integrally formed therewith a nozzle comprising:

(i) an elongate nozzle body having a base portion and a dispensing end;

(ii) an internal conduit in the nozzle body for delivering product from the base portion to the dispensing end;

(iii) engaging formations on the nozzle for inter-engaging with co-operating engaging formations on a cap, to hold said cap in a position over-fitting the nozzle; and

(iv) ~~an~~ first and second external ramps are provided longitudinally spaced apart on the nozzle body and against which a co-operating portion on the cap may act by relative rotation of the cap and the nozzle in at least one direction, to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position wherein first and second external ramps each comprise a ramping surface oblique to the direction of rotation of the caps, the nozzle arranged for dispensing dispensable product from the container.

48. (Currently Amended) A container having attached thereto a nozzle comprising:

(i) an elongate nozzle body having a base portion and a dispensing end;

(ii) an internal conduit in the nozzle body for delivering product from the base portion to the dispensing end;

(iii) engaging formations on the nozzle for inter-engaging with co-operating engaging formations on a cap, to hold said cap in a position over-fitting the nozzle; and

(iv) ~~an~~ first and second external ramps are provided longitudinally spaced apart on the nozzle body and against which a co-operating portion on the cap may act by relative rotation of the cap and the nozzle in at least one direction, to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position wherein first and second external ramps each comprise a ramping surface oblique to the direction of rotation of the caps, the nozzle arranged for dispensing dispensable product from the container.

49. (Previously Presented) A container according to claim 47 further comprising a cap for overfitting a dispensing nozzle comprising:

(i) a first closed end;

(ii) a housing for receiving an elongate nozzle body and defining a second open end;

(iii) engaging formations on the cap for inter-engaging with co-operating engaging formations on the nozzle, to hold said cap in a position over-fitting the nozzle; and

(iii) a mouth about the open end;

at least one co-operating portion on the cap arranged to act on a ramping surface of the nozzle when overfitted on the nozzle so as to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position overfitted on and engaged with the nozzle.

50. (Previously Presented) A container according to claim 47 containing therein a curable product.

51. (Previously Presented) A container according to claim 50 wherein the curable product is an adhesive product.

52. (Previously Presented) A container according to claim 51 wherein the adhesive is a cyanoacrylate adhesive.

53. (Previously Presented) A container according to claim 48 further comprising a cap for overfitting a dispensing nozzle comprising:

(i) a first closed end;

(ii) a housing for receiving an elongate nozzle body and defining a second open end;

(iii) engaging formations on the cap for inter-engaging with co-operating engaging formations on the nozzle, to hold said cap in a position over-fitting the nozzle; and

(iii) a mouth about the open end;

at least one co-operating portion on the cap arranged to act on a ramping surface of the nozzle when overfitted on the nozzle so as to provide sufficient relative separation force between the cap and the nozzle body, to separate the engaging formations on the cap and the nozzle from an inter-engaged position overfitted on and engaged with the nozzle.

54. (Previously Presented) A container according to claim 48 containing therein a curable product.